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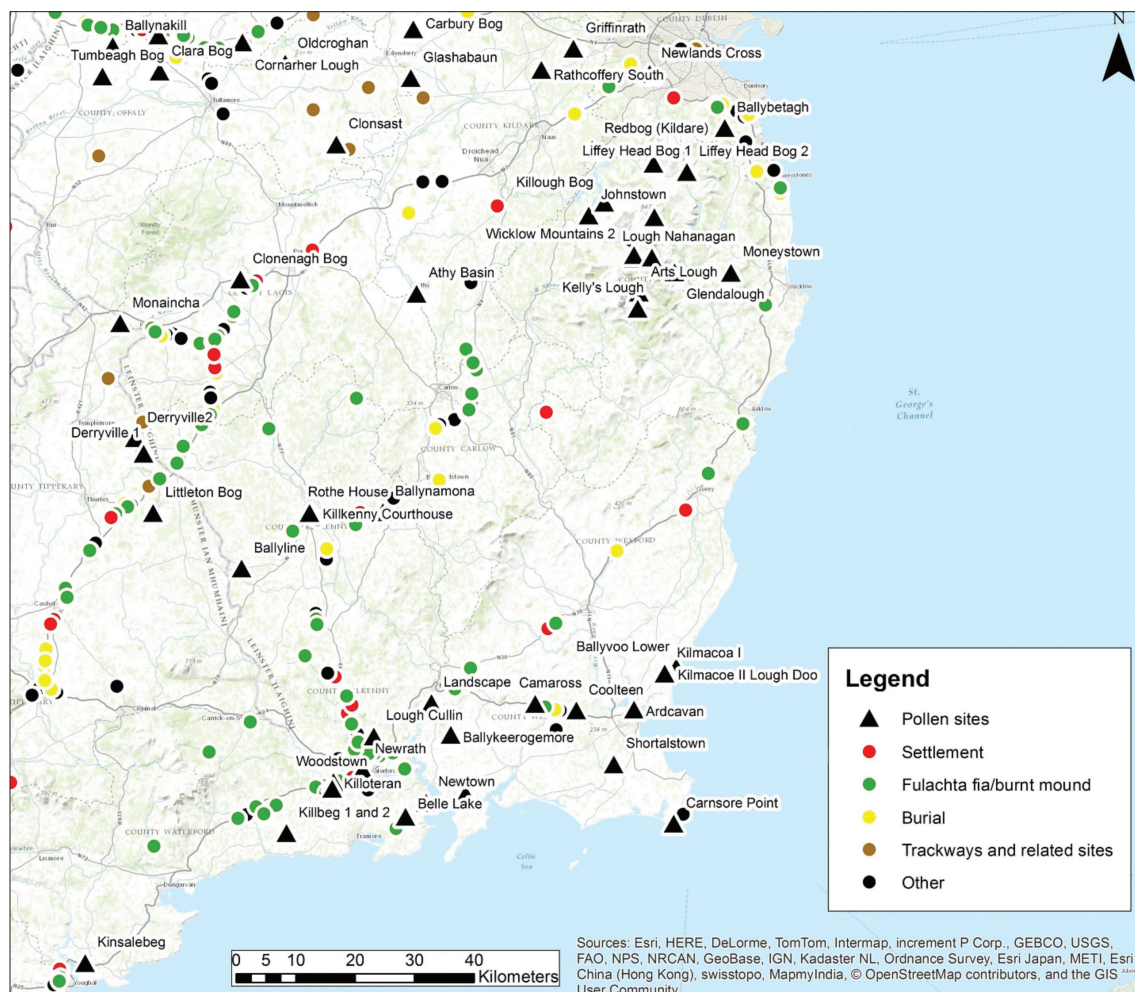
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SEEING BEYOND THE SITE—AN INNOVATIVE APPROACH TO EXAMINING LATER PREHISTORIC IRELAND

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A time of transition

The conventional view of later prehistoric Ireland, the period between 1200 BC and AD 400, drew a dramatic contrast between an affluent Late Bronze Age society living through Ireland's prehistoric 'golden age' and impoverished and isolated communities living in the 'dark age' of the ensuing Iron Age. Two centuries of archaeological research had revealed that in the Late Bronze Age (1200–800 BC) large numbers of metal objects (both bronze and gold) were deposited in bogs and other watery places. The summits of many hills were encircled with ramparts (banks and ditches) generally enclosing areas of up to three hectares. These sites, known as hillforts, must have required the organisation of a large workforce and imply the presence of some authority 'directing' the work. The construction of hillforts and the nature of some of the contemporary objects in use—including bronze swords, cauldrons, horns and a variety of gold bracelets, neck ornaments and headgear—have been used by archaeologists to infer the existence of a society dominated by a warrior elite.



Illus. 1—Distribution of archaeological and palaeoenvironmental sampling sites in south-east Ireland examined as part of the Seeing Beyond the Site project (Seeing Beyond the Site project).

This society seems to have undergone a dramatic change from about 800 BC, with the building of hillforts as well as the production and deposition of elaborate bronze and gold items ceasing; this could be explained by the weakening of existing power structures and loss of wealth. The ensuing period of low-activity levels, both in terms of artefacts as well as site evidence, has led to this period being characterised as a ‘dark age’. There is some evidence that iron was being worked in Ireland as early as the eighth century BC. Iron seems to have replaced bronze as the material of choice for the manufacture of functional items such as agricultural implements, axes, swords and spears after about 600 BC (archaeologists consider that the Iron Age had begun in Ireland by this date). The lack of evidence for the dark age makes it difficult to trace the development of these items during the earliest stages of the Iron Age. However, we know that bronze was still used for the manufacture of prestige items such as trumpets, decorative covers for sword scabbards, horse gear, vessels and ceremonial regalia, and gold continued to be used to make neck ornaments. Such prestige items reappear in Ireland by 300 BC; they are richly ornamented with abstract designs in a style of art known as La Tène, which developed in central Europe in the preceding two centuries. The distribution of La Tène material across the island of Ireland appears to have been uneven, with very few finds in Munster and south Leinster. A series of ceremonial centres was the focus of significant developments in the Iron Age. Well-known sites such as Tara (Meath), Navan Fort (Armagh), Rathcroghan (Roscommon) and Knockaulin (Kildare) witnessed the construction of large ditched enclosures, mounds and wooden buildings. The occurrence of fine metalwork and the creation of ‘royal’ sites led the late Professor Barry Raftery to characterise society in the middle part of the Irish Iron Age as being led by a ‘warrior aristocracy’. In the following early medieval period these sites were identified as tribal capitals and their earthworks were associated with ceremonial spectacles including the rituals surrounding the selection and inauguration of kings.

But what of the ordinary people whose daily toil supported their elite, aristocratic rulers in late prehistoric Ireland? Where did they live, what was the basis of their economy, and how did they use and change the landscapes around them? Does the lack of archaeological evidence during the change between the apparently prosperous Late Bronze Age and the re-emergence of an elite culture during the Iron Age correspond to changes in the life styles of ordinary folk? The increasing pace of archaeological discovery as a result of systematic archaeological investigation of development projects, particularly motorway and other national road schemes, during the 1990s and continuing through the ‘Celtic Tiger’ era led to the discovery and excavation of a range of new sites which have greatly expanded our knowledge and understanding of Late Bronze Age and Iron Age Ireland. These discoveries have shed significant new light on the types and distribution of settlement, the development of agriculture and the use of natural resources.

Revisiting the data

A multidisciplinary team led by Dr Katharina Becker and Dr Ben Gearey of the Department of Archaeology in University College Cork received INSTAR (Irish National Strategic Archaeological Research Programme) research funding in 2015 to commence a collaborative project titled *Seeing Beyond the Site* with the aim of using new approaches to investigate the data generated from

development-led archaeology. TII is a project partner and also provided funding; other partners include the University of Bradford and the University of York in the United Kingdom.

The new data sets provide the long missing evidence for the everyday and the ordinary, the stratum of society that presumably supported the elaborate elite cultures of the Irish Late Bronze Age and Iron Age. The project has focused in its initial pilot phase on part of the previously understudied south-east of Ireland and specifically on counties Waterford and Kilkenny (Illus. 1). Here, in particular, the results of archaeological excavation in advance of the construction of road schemes and gas pipelines paint a picture of an economy based on small farmsteads engaged in mixed agriculture and using local resources. Settlement sites are often located along river valleys and are interspersed by *fulachtaí fia*, a ubiquitous site type that was used to produce hot water which could have been put to a variety of uses including cooking and bathing (Illus. 2). People lived in roundhouses and the appearance of kilns and iron-working sites in the Iron Age indicates the adoption of new technologies and possibly the intensification of agricultural production. Also shifts in settlement density and location from the Late Bronze to the Iron Age speak of changes in landscape use. To explain and contextualise these changes in the archaeology we have to look to the palaeoenvironmental data sets.



Illus. 2—Archaeologists excavating the trough of a Late Bronze Age fulacht fia at Ask, Co. Wexford, on the M11 Gorey to Arklow Link (James Eogan, Transport Infrastructure Ireland).

Exciting insights

The plant and animal remains retrieved from excavations provided some of the most exciting insights into this period, revealing evidence for crop and animal husbandry, and the continuing exploitation of wild resources across the study area. Plant macro-remains (such as cereal grains, weed seeds, nutshells and fruit stones) and animal bone were recorded at many, but not all, excavations in the study area. The remains were found at different types of sites, including settlements, *fulachtaí fia*, metal-working sites and kilns. Plant remains were present at around one-third of the excavations in the study area. Barley was the dominant cereal, while wheat was also an important crop at this time. Oat was recorded at a much smaller number of excavations, and it is unclear if this reflects wild oat or the cultivated variety. Wild plants were also exploited, including hazelnuts and bramble fruits. Animal bone was found at around one-quarter of the excavations in the study area. In many cases, the animal bone could not be identified to species level because it was so fragmented. Cattle and pig were, however, recorded at a few sites. Cattle bone was more often present at Late Bronze Age sites, while there appears to be a shift towards pig during the Iron Age, although this is so far based on a small number of records examined in the first year of the project. Wild animal bone was



Illus. 3—Borehole excavation at Portlaw, Co. Waterford (left), and the basal deposits in a core taken from Coolgower, Co. Waterford (Seeing Beyond the Site project).



Illus. 4—Archaeologist recording an Iron Age brushwood structure at Newrath, Co. Kilkenny (James Eogan, Transport Infrastructure Ireland).

not found at any site. Overall, the record points towards a mixed farming economy during both the Late Bronze Age and the Iron Age, with food-related activities being undertaken in many different circumstances and locations.

The project has also collated and reviewed palaeoenvironmental studies from the region and has carried out assessments of some potential locations for further palaeoenvironmental sampling (Illus. 3). The general lack of peatland sites in the lowlands of the region, suitable for the preservation of long records of environmental change, means that the south-east has long been an area lacking the detailed, radiocarbon-dated pollen records that are now available for many other regions. This means that we have a rather significant gap in our understanding of the nature of vegetation change over the last 12,000 years, and in the context of the aims of this project, really very little evidence of the timing and nature of human activity which would inform understanding of landscape changes from the Bronze Age into the Iron Age. However, there are some key palaeoenvironmental data sets available from locations such as Woodstown, Co. Waterford, and Newrath, Co. Kilkenny, on the estuary of the River Suir, both of which were excavated in advance of the construction of the N25 Waterford City Bypass. The latter site is especially interesting owing to the excavation of later prehistoric wetland sites, including Bronze Age and Iron Age trackways, platforms and a mound of burnt stone (Illus. 4). The palaeoenvironmental records from these and a few other locations provide important information concerning patterns of local environmental change, but we are some way off understanding the spatial and chronological impact of human activity across the study area during the late prehistoric period. This is crucial in terms of contextualising the archaeological, plant macrofossil and faunal data sets discussed above and in providing evidence of the changing character and intensity of woodland clearance, settlement and agriculture. Fortunately, the project has also identified locations where deposits of high palaeoenvironmental potential are preserved. Initial assessment and rangefinder radiocarbon dating indicates that further detailed study of these records should shed much-needed light on patterns and processes of environmental change, and the role of human communities in shaping the landscape from the Bronze Age into the Iron Age.

The project is ongoing and has received further INSTAR and TII funding for 2016. The principal objectives for this phase include accessing and evaluating newly available excavation reports for sites relevant to the project. A GIS (geographical information system) will be used to analyse the distribution and interrelationships of sites in the expanded project database. A critical objective is to develop high-resolution chronological models for pollen sequences across the study area from both lowland and upland sampling sites. This will involve analysing pollen sequences from sites in Waterford and Kilkenny and evaluating the potential of sampling sites in County Carlow. The programme of examination of archaeobotanical and zooarchaeological data from excavations will continue and detailed analysis of the expanded data set will be undertaken. Achieving each of these objectives will deepen our understanding of the human activity in the late prehistoric landscapes of south-east Ireland. This integrated and collaborative project, focused on a region that has not been noted for the significance of its late prehistoric archaeology, will allow us to develop interpretations that move beyond the simple characterisations of Bronze Age and Iron Age societies dominated by aristocratic warriors.

Readers can find out more about Seeing Beyond the Site by visiting the project website (<https://www.ucc.ie/en/archaeology/research/projects/seeingbeyondthesite/>) and following the project on Twitter @Beyond_the_site.



Illus. 5—An ‘open lab’ event entitled Pollen, Peas and Pigs was held as part of Heritage Week 2015 in the Department of Archaeology, University College Cork, where the public were invited to learn about the project and the types of archaeological data that enable the reconstruction of people’s lives, such as pollen, animal bone and plant remains recovered from archaeological excavations. At the well-attended workshops, visitors had the opportunity to grind grain on a real prehistoric quern stone, experiencing first-hand the labour involved in ‘the daily grind’ to convert cereal grains into flour and meal for porridges, gruels and breads (Nick Hogan).